

Claims

- [1] 1. The styrenic thermoplastics composition comprising:
100 parts by weight of a resin comprising 10-50 parts by weight of a graft copolymer comprising rubber-modified styrene and 30-70 parts by weight of a copolymer comprising styrene; and
0.5-20 parts by weight of an acrylic rubber-modified copolymer having a rubber particle size ranging from 800 to 6,000 Å .
- [2] 2. The styrenic thermoplastics composition of claim 1, wherein the graft copolymer comprising rubber-modified styrene comprises:
30-65 parts by weight of at least one selected from the group consisting of styrene, α -methylstyrene, *p*-methylstyrene, vinyltoluene and *t*-butylstyrene;
10-30 parts by weight of at least one selected from the group consisting of acrylonitrile, methacrylonitrile and ethacrylonitrile; and
10 - 60 parts by weight of a rubber.
- [3] 3. The styrenic thermoplastics composition of claim 2, wherein the rubber is polybutadiene, styrene-butadiene copolymer, polyisoprene or butadiene-isoprene copolymer having a particle size ranging from 500 to 4,000 Å .
- [4] 4. The styrenic thermoplastics composition of claim 1, wherein the copolymer comprising styrene comprises:
50-90 parts by weight of at least one selected from the group consisting of styrene, α -methylstyrene, *p*-methylstyrene, vinyltoluene and *t*-butylstyrene; and
10-50 parts by weight of at least one selected from the group consisting of acrylonitrile, methacrylonitrile and ethacrylonitrile.
- [5] 5. The styrenic thermoplastics composition of claim 1, wherein the copolymer comprising styrene has a weight-average molecular weight ranging from 50,000 to 200,000.
- [6] 6. An extrusion sheet manufactured from the styrenic thermoplastics composition of claim 1.
- [7] 7. An acrylic rubber-modified copolymer comprising:
5 - 15 parts by weight of a seed polymerized from an alkyl acrylate;
45-75 parts by weight of a core polymerized from an alkyl acrylate; and
10-50 parts by weight of a shell polymerized from an alkyl methacrylate and/or an alkyl acrylate.
- [8] 8. The acrylic rubber-modified copolymer of claim 7, wherein the seed

comprises 95.0-99.95 wt% of an alkyl acrylate having 2-8 carbon atoms in the alkyl group.

- [9] 9 The acrylic rubber-modified copolymer of claim 7, wherein the core comprises 95.0-99.95 wt% of an alkyl acrylate having 2-8 carbon atoms in the alkyl group.
- [10] 10. The acrylic rubber-modified copolymer of claim 7, wherein the shell comprises:
90-100 wt% of an alkyl methacrylate having 1-4 carbon atoms in the alkyl group; and
0 - 10 wt% of an alkyl acrylate having 1-4 carbon atoms in the alkyl group.
- [11] 11. The acrylic rubber-modified copolymer of claim 8 or claim 9, wherein the alkyl acrylate is at least one selected from the group consisting of methyl acrylate, ethyl acrylate, propyl acrylate, isopropyl acrylate, butyl acrylate, hexyl acrylate, octyl acrylate, 2-ethylhexyl acrylate, homopolymers thereof and copolymers thereof.
- [12] 12. The acrylic rubber-modified copolymer of claim 10, wherein the alkyl methacrylate having 1-4 carbon atoms in the alkyl group is at least one selected from the group consisting of methyl methacrylate, ethyl methacrylate, propyl methacrylate, isopropyl methacrylate and butyl methacrylate.
- [13] 13. The acrylic rubber-modified copolymer of claim 10, wherein the alkyl acrylate having 1-4 carbon atoms in the alkyl group is at least one selected from the group consisting of ethyl acrylate, methyl acrylate and butyl acrylate.
- [14] 14. The acrylic rubber-modified copolymer of claim 7, which has a rubber particle size ranging from 800 to 6,000 Å .